

## Claims

1. A process for producing an aliphatic dicarboxylic acid compound, which comprises oxidizing, with a nitrite or a  
5 nitrate in the presence of trifluoroacetic acid, an alicyclic secondary alcohol compound or an alicyclic ketone compound, in each of which at least one methylene group is bonded to the carbon atom having hydroxyl group bonded thereto or the carbon atom as a member of carbonyl group, wherein the reaction is  
10 conducted in the presence of water of 5 mass % or less relative to 100 mass % of the total of the trifluoroacetic acid and the water.
2. A process for producing an aliphatic dicarboxylic acid compound according to Claim 1, wherein the alicyclic secondary  
15 alcohol compound or the alicyclic ketone compound is a 3- to 12-membered cyclic compound.
3. A process for producing an aliphatic dicarboxylic acid compound according to Claim 1, wherein the amount of the  
20 nitrite or nitrate used is 0.5 to 10 mols relative to 1 mol of the alicyclic secondary alcohol compound or the alicyclic ketone compound.
4. A process for producing an aliphatic dicarboxylic acid compound according to Claim 1, wherein the concentration of the  
25 alicyclic secondary alcohol compound or the alicyclic ketone compound in trifluoroacetic acid is 0.05 to 60 mass %.

5. A process for producing an aliphatic dicarboxylic acid compound according to Claim 1, wherein the alicyclic secondary alcohol compound is cyclohexanol.

6. A process for producing an aliphatic dicarboxylic acid  
5 compound according to Claim 1, wherein the alicyclic ketone compound is cyclohexanone.